



PORTAL eSERVICES CONCEPT EXPLORATION DOCUMENT

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1 Executive Summary

In 1995, the State of California implemented its first state web site, which consisted of mainly informational web sites about each department. Since that time, the State has implemented a state portal and some online systems. The current State portal consists of a web server, a common look and feel, and a basic set of common navigation tools.

In November 2005, the Department of Technology Services (DTS) and State Chief Information Officer (CIO) initiated a project to update the State portal and potentially increase some of its functionality. This exploration document discusses the final phase of that project which is focused on developing a long-term solution for the State portal.

Since its implementation in 2002, there have been a number of problems associated with the State portal. In general, these problems are:

- Outdated and obsolete technology
- Limited functionality
- Complex high-cost infrastructure
- Inability to support the State CIO's "In Touch" vision and departmental online systems

As a result of these and other such problems, DTS proposes to pursue a service offering solution that will:

- Refresh the State portal so that it serves as a platform for future State initiatives
- Acquire the knowledge, skills, expertise, and resources to assist the departments in developing portal-based systems

To accomplish these high-level objectives, DTS proposes to enter into a partnership with a private-sector entity. This partnership would refresh the State portal and then offer application development services to departments for developing portal-based systems. The DTS proposes that the portal refresh and its ongoing support would be provided to the State at no cost since the private-sector partner would receive compensation through future portal application efforts in the State. The DTS believes this strategy offers the State with an innovative solution for addressing the current issues with the State portal and providing additional options to the State for developing portal-based systems.

To acquire its private-sector partner, DTS and the Department of General Services (DGS) would release a Request for Proposal and then allow interested



vendors to propose solutions to that request. At the end of the procurement, the vendors would provide costs to implement the proposed solution. This approach is somewhat similar to DGS' proposed solution-based information technology procurements, which are focused on describing the business needs and the problems that the State is currently experiencing without necessarily describing the technology solution to those problems. This approach allows the vendor community to respond to the State with proposals that they believe will best address the State's needs. Since the solution is unknown at the time of procurement, the costs of the proposed contract will also be unknown. For this reason, some portions of this concept document are incomplete. The DTS proposes to submit a completed business plan once the intent to award has been issued.

To help the Technology Services Board (TSB) and its Services Committee gain a better understanding of what DTS plans as a Portal eService, DTS believes conceptually that it will be able to provide two service offerings as a result of the proposed partnership—a core portal service and a portal development and implementation service. The core portal service would expand on the existing DTS portal functions. The portal development and implementation service would consist primarily of vendor-provided application development and support activities.

Since the costs of the contract are unknown at this time, DTS is unable to produce definitive rates or a rate structure. These details will be defined after the State has issued an Intent to Award. However, DTS anticipates that all the costs related to the planned portal services can be segregated into four service categories: (1) enterprise services, (2) customer application development, (3) customer application maintenance and operation, and (4) customer application hosting.

The DTS believes that its proposed approach to refreshing the State portal and acquiring a partner to assist departments in developing portal-based systems offers a new approach to data center services. This approach provides the State with new and updated technology and allows the State to receive private-sector assistance in making government services more accessible to the public.



2 Business Analysis

2.1 Background/History

In 1995, the State of California introduced its first state web site. This initial web site was known as the “California Home Page” and it consisted of mainly informational web sites about each department.

Five years later in September 2000, former Governor Davis issued an Executive Order (EO) stating that the State would work with both public and private entities to establish a state portal. The intent of the EO was to establish a common web site infrastructure that all departments could use to support their Internet systems. In addition, the EO directed departments to integrate new and existing Internet systems into the portal as much as possible.

Originally, the Department of General Services (DGS) was responsible for the development and implementation of the new State portal. The DGS acquired a consulting firm to develop and maintain the State portal. In addition, it purchased a number of software and hardware components which comprised the basic infrastructure of the State portal. The State portal was implemented in 2001.

Shortly thereafter, the U.S. economy experienced a number of economic shocks (stock market decline, dot com bust, energy crisis, and September 11). By 2002, these economic problems created a significant budget problem within the State, which led to major cutbacks in many budget areas, including information technology (IT). In addition, a number of other noteworthy events occurred, including the sunset of the Department of Information Technology which significantly affected the State’s IT efforts. The State portal program experienced significant cuts in funding, which resulted in the elimination of the external consulting support developing, evolving and maintaining the State portal. It also resulted in an indefinite curtailment of plans to expand the capabilities of the portal.

In September 2002, DGS transferred responsibility of the portal to the Stephen P. Teale Data Center. At that time, a state policy was also put into effect that requires all departments to pay a fee to support the annual ongoing costs of the portal. This fee is a percentage of a department’s annual appropriation. For example, a department with an annual appropriation of \$89 million pays an annual fee of \$2,500 dollars. Annual fees range from \$1,000 dollars to \$315,000 dollars. The current



Department of Technology Services' (DTS) expenditure authority includes \$3 million and ten positions for the annual ongoing support of the portal.

From 2002 to 2005, little was done to the State portal beyond updating content for the initial pilot agencies and keeping the software and hardware operational. Ongoing support to agencies for the development of agency-specific content and applications was curtailed. The current State portal consists primarily of a web server, a common look and feel, and a basic set of common navigation tools.

In November 2005, DTS and the State Chief Information Officer (CIO) initiated the Portal Redesign Project (PRP) to update the portal and potentially increase some of its functionality. Specifically, the project consists of:

Phase I – Fix Search Engine and Implement A New Look and Feel

During the spring of 2006, DTS conducted a survey of portal users. This survey found that the portal's search engine queries did not provide adequate results. For these reasons, DTS conducted an evaluation of search engine products. The evaluation recommended replacement of the search engine with the Google Search Appliance (GSA). In January 2007, DTS replaced the previous portal search engine with GSA.

Also, during the spring of 2006, DTS acquired a consultant to test the usefulness or "usability" of the current portal. Specifically, the consultant conducted a review of the portal for its compliance with accessibility and usability standards and best practices. In addition, the consultant conducted an extensive in-person test of the portal using a representative sample of Californians. As a result, the consultant made a number of recommendations to improve the usability and accessibility of the portal. Based on these recommendations and in consultation with a number of departments, DTS and the eServices Office within the State and Consumer Services Agency developed a new look and feel for the State portal. In January 2007, the State portal's new look and feel was implemented.

Phase II – Define Payment Engine Needs

Some types of government online systems must be able to accept and process payments. Since the State portal does not include payment processing capabilities, each department is required to develop their own systems to process online payments. In other states, the State portal typically includes a common payment processing feature which is used by most agencies to process online payment transactions. In the spring of 2006, DTS acquired a consultant to define the business requirements of a common online payment processing system. This analysis was completed in July 2006.

Phase III – Procure A Long-Term Solution

The current State portal does not include all of the functions that other state portals typically provide. For example, some state portals allow professionals to renew their annual licenses or boat owners to register their vessels. The current State portal may not have all of the IT infrastructure to support these types of online services. To assess these needs, DTS acquired a consultant to (1) determine what infrastructure a portal should have and (2) assist DTS in preparing a procurement document to acquire a partner for the State to update the State portal and assist departments in developing online systems. The consultant, Gartner Consulting, has completed most of the analysis and assessment of the State portal.

The remainder of this document discusses Phase III of the PRP.

2.2 Business Problem or Opportunity

The final phase of the PRP consists of two major components: (1) refreshing the current portal's infrastructure and (2) providing a mechanism for departments to receive assistance in developing portal-based systems. The following discusses the business problems and opportunities associated with each of these two components.

Portal Refresh

At the September 27, 2006 Technology Services Board (TSB) meeting, DTS noted that the current portal's infrastructure is obsolete and has not been updated since its implementation in 2001. Even though DTS has recently changed the look and feel of the web pages and replaced the search engine, the primary hardware and software are still in place. As a result, the State portal has a number of problems as described below:

- Each component of the current portal is tightly integrated with the other, and the result is that the portal is not easy to change. For example, making the recent changes in the look and feel of the site (updating colors, styles, and navigation bars) required over 500 hours of effort for just the State portal. Departments will also make similar changes to their individual web sites which will require hundreds of hours of staff time.
- The DTS has not been able to upgrade to the latest software version for most products due to lack of technical support.
- Several of the current portal components that were considered industry and market leaders in 2000 are not considered market

leaders today. As a result, the portal has failed to evolve to match significant advances in Internet technologies (e.g., search, payment, content management, workflow, and cascading style sheets). Even though the State spends about \$3 million annually to operate the portal, it does not currently have the functionality that matches the expense.

- Currently, the State portal is little more than a directory of statewide services and departments with static links to agency and department web sites. Recently, even sites that were housed on the State portal have moved their sites off the portal. For example, the Governor's Office and the California Travel and Tourism Commission cited the system as being unreliable, not vendor-supported (TeamSite and TeamSite BroadVision Interface combo), and unnecessarily complex, as their reasons for moving off the current portal infrastructure.
- Since the current State portal has offered limited functionality to the State, each department, for the most part, has had to implement their own Internet infrastructure. This means that there are a wide range of technology platforms and multiple versions of similar hardware and software supporting similar type of functions.
- Since each department maintains its own Internet infrastructure, each department manages its own web sites with different standards, support, hosting agreements, and licensing arrangements. There is limited consistency between these various standards and agreements. This is also an indicator of a duplication of efforts resulting in significant additional costs to the State.
- One of the important features of today's portal technology is the ability to share information between online systems. For example, many State programs maintain address information about their clients. Some of these clients are served by multiple state programs. However, changes in addresses cannot be easily shared between state programs. Some portal technologies allow this type of information to be easily shared between online systems. The current technology for the State portal does not have this capability.
- There are a few state technology initiatives that many departments will need to utilize in their online systems. Most of these initiatives are still in the planning and development phases. For example, the Department of Health Services (DHS) is responsible for developing a system to search for social security numbers and it is expected to utilize an Enterprise Service Bus (ESB) to perform this functionality.

An ESB is technology that allows different software products to “talk to” one another. A fully-functioning portal should be able to integrate with an ESB to support other online functions. The current technology for the State portal will not easily integrate with most of the forthcoming statewide technology initiatives.

- The current process for modifying web content on the State portal is time consuming and complex. Newer content management software does not typically require as many steps as the portal’s current process. In fact, the portal’s current process takes about three times longer than more current technology. The following steps, which take about 15 minutes per web site page, are an example of what each department would need to perform to modify content through the existing State portal:
 1. The publisher enters TeamSite Content Center browser-based UI with Visual Formatter.
 2. Within TeamSite Content Center, the publisher will enter content through Data Content Templates (DCTs).
 3. Once the content is entered, TeamSite will generate HTML.
 4. The publisher must not submit the generated content for parsing to enter into BroadVision.
 5. A batch process is then initiated in which the TBI will parse the content for deployment and update the database within BroadVision through a TBI/BroadVision IM connection.
 6. This update will store the data within BroadVision’s Oracle database.
- In addition to the content management process, another tedious process in the current State portal is the templating process, which allows the reuse of the “look and feel” for web pages. Newer content management software is typically more efficient in its templating process. The current process for changing the look and feel of the State portal, which takes about 15 minutes per web site pages, consists of:
 1. The administrator creates a template data directory in the Workarea if it doesn’t exist.
 2. S/he must then create a directory under template data for each Category and sub-directories for each Data Type.
 3. After that, s/he must create a Data Capture Template form for each Data Type in the Data Type directory and name the file datacapture.cfg.

4. Then, s/he must create a Presentation sub-directory under the Data Type directory and one or more Presentation Templates for each Data Type, named xxxx.tpl under the new directory.
5. Afterwards, s/he must create a Data sub-directory under the Data Type directory to hold the Data Capture Record files.
6. Once that directory is created, s/he must create entry in <iw-home>/local/config/templating.cfg for each Category and Data type.

Assistance to Departments

Since the summer of 2006, DTS has met with other states and portal vendors in order to better understand how other states have approached portal and portal-based systems development. These discussions have led to the identification of several key problems in the State's approach to portal-based system development as discussed below.

- In the early 2000s, the State began implementing Internet-based or "online" systems. At that time, the primary online system was the DMV vehicle registration system. Even though the State has implemented some additional systems, a recent study found that California continues to rank 31st among the 50 states in providing online systems. While the State has done well in publishing information on the Internet and building a few online services, overall there is large number of services that still need to be developed.
- In May 2006, the State CIO issued his "Government Services on the Web: 'California In-Touch'". This document establishes a vision for making government services more accessible to the public. In particular, it describes a framework of "service centers" based on groupings of similar state programs. For example, the Business Service Center includes programs that serve businesses and the Family Service Center would include programs such as foster care that serve families. The State has made some progress in developing these service centers. However, the current portal technology will not easily support the concept of service centers so it will be difficult for the State portal to support the "In-Touch" vision.
- In addition to having an Internet infrastructure, departments need technical resources to develop and implement online systems. In our discussions with other states, we found that most states have acquired a vendor partner to help develop online systems. These partners usually have pre-packaged solutions to common state services such as issuance of fishing licenses and renewals of professional licenses. By having a vendor partner, these states did not have to create their own systems and were able to draw upon the

vendor's resources to implement the systems. Currently, in this State, most departments have resources dedicated to supporting existing systems. When a department wants to implement a new system, it must usually request additional resources to develop and implement that system. One of the reasons why the State has not implemented many online systems may be that some departments lack the resources to develop these types of systems.

- Even though the original concept behind the implementation of the State portal was a comprehensive suite of software and hardware products that all departments could use, that concept was never fully implemented. For this reason, each department has had to purchase their own infrastructure to support their online systems. This means that, in addition to paying the costs of the State portal, departments are also paying the costs of their own online infrastructure to support their systems. A more functional state portal infrastructure may help departments eliminate some of their existing hardware and software. In addition, by receiving assistance from a vendor that is familiar with the refreshed portal, departments would receive the benefit of that vendor's knowledge of the portal infrastructure.
- Since the State portal was never fully implemented, there is an overall general lack of understanding in the State on how the State portal operates and how its infrastructure can support online systems. In discussions with other states, DTS found that states with a fully-functioning portal spent time educating government entities on the capabilities of its portal. Even though DTS has some staff supporting the State portal, it does not have capacity to educate departments on the capabilities of the State portal. This may be one of the reasons why departments have struggled with implementing online systems and why the portal has not been fully adopted.

2.3 Business Objectives

The high-level business objectives of a portal service offering are to:

- Refresh the State portal so that it serves as a platform for future portal initiatives, including hardware, software, and services.
- Integrate the refreshed State portal with the GSA search capability and provide integration points with the other key statewide technology initiatives (e.g., ESB, payment engine, identity and access management).
- Redeploy the web sites running on the current State portal infrastructure onto a new infrastructure and decommission the existing infrastructure.

- Acquire the knowledge, skills, expertise, and resources to assist the State in refreshing the State portal and assisting departments in developing portal-based systems.
- Implement a services agreement which enables departments to engage a private-sector partner quickly and cost-effectively to implement new portal-based applications and services leveraging the refreshed State portal infrastructure (or to integrate existing or web-based applications into the refreshed State portal).

2.4 Consequences of Inaction

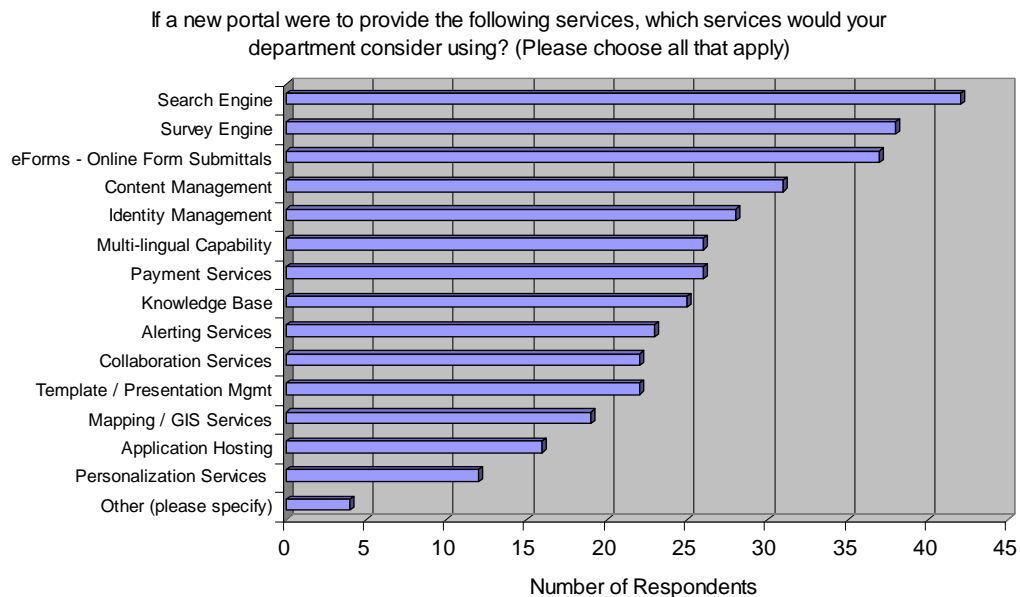
If the State does not refresh the existing State portal and acquire assistance for departments to develop portal-based systems, the following would likely continue or occur:

- High expenditure of funds for a system that has limited value and usefulness for departments.
- Limited ability to utilize an existing shared system for statewide use.
- Excessive use of staff hours in every department to complete relatively mundane functions such as changing web site content.
- Use of out-dated software products that have limited functionality.
- Lack of technical support for out-dated software products.
- The continued purchases by individual departments of similar hardware and software products for similar functions.
- Inconsistent Internet standards, hosting agreements, and licensing arrangements between departments for the similar products and services.
- Limited number of online systems available through the State.
- Continued lack of technical resources to develop and implement online systems.
- Development of unique online systems instead of using systems that perform the same function in other states.
- Limited ability to share information between programs and departments.
- Inability to support and implement the State CIO's "In-Touch" vision.
- Continued lack of understanding of the State portal and its capabilities.
- Duplication of efforts resulting in higher costs to the State.

2.5 Customer Adoption Assumption

During its review of the State portal's infrastructure, Gartner Consulting conducted a series of focus groups and surveys to determine the potential interest of departments in an expanded portal service offering. Figure 1 depicts the results of one survey which asked 45 departments if they would use specific functions in a shared service offering. The survey results indicate that most of these departments would be interested in a portal service offering.

Figure 1: Survey Results of Portal Service Offering



Conceivably, all departments are potential customers of a fully-functioning state portal. The exact number of departments which would actually subscribe to a new portal service is unknown at this time. Further research is required by DTS to learn the full extent of potential customer adoption. However, several departments have expressed an interest in a proposed service offering. For example, the Board of Equalization, Department of Consumer Affairs, and DHS have expressed interest in various portal-based services. The Employment Development Department is interested in a content management service. Other departments have expressed interest, but would rather wait to see what the final services and rates will be. Upon approval of the concept document, DTS will conduct additional surveys to determine customer interest.

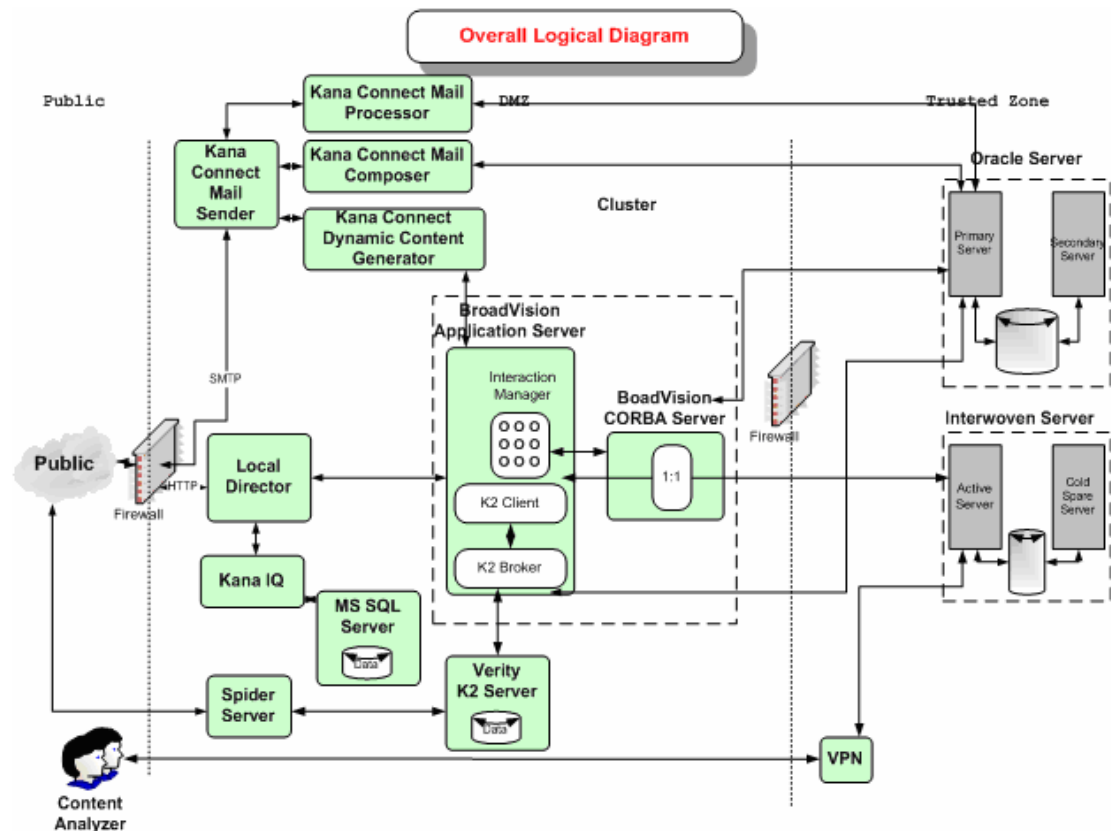
2.6 Baseline/Existing Environment

The State portal consists of five major components: (1) software, (2) hardware, (3) applications, (4) web sites, and (5) security. These components are discussed in more detail below.

Software

The current portal was developed based on 2001 best-of-breed software products for content management, presentation management, search, and self-service. Figure 2 provides a logical diagram of how the State portal is designed and operated from a software perspective.

Figure 2. State Portal Logical Diagram



The versions of the software running on the State portal are:

Vendor	Software	Version	Market Version
BroadVision	BroadVision 1-to-1 Enterprise	7.1 SP3	8.0
Interwoven	Interwoven TeamSite	5.0.2	6.7.1
Interwoven	Interwoven OpenDeploy	4.2.1	6.0
Kana	Kana IQ	7.0.2.11	9.1
Kana	Kana Response	7.0	8.0
Kana	Kana Connect	6.0	6.0
Autonomy	Verity K2	5.5	6.11
Sun	iPlanet Web Servers	6.1 SP6	7.0
Oracle	Oracle Database	8.1.6	10g
Google	Google Search Appliance (GSA)	4.6.4.G.70	4.6.4.G.70

The following provides additional details on each of the software products.

BroadVision

BroadVision 1-to-1 Enterprise is an application server, presentation management and personalization engine. It provides the base platform for the State portal. The State portal uses 1-to-1 Enterprise as its application server, personalization engine and presentation management component. The application server is built on CORBA. The personalization engine and presentation management components are developed in C++. Many of the pages within the State portal are developed in server-side Java Server Pages. One issue with BroadVision is that DTS currently has to restart BroadVision and the CORBA connections to Oracle weekly. This is done as a proactive preventive measure due to periodic connectivity loss between BroadVision and Oracle.

Interwoven

Interwoven TeamSite provides web content management to the enterprise. It manages content across all internally and externally facing web-based business applications, such as enterprise portals, intranets, self-service applications, public-facing web sites, and extranets. Interwoven OpenDeploy provides aggregation and distribution of any type of content (web content, code, documents, media, etc.) to any application (comprised of web servers, application servers, database servers or simple file servers) in any physical location within a network.



The Interwoven products and their functions in the State portal are:

TeamSite <ul style="list-style-type: none">• Content repository• Virtualization• Workflow	OpenDeploy <ul style="list-style-type: none">• Moves content to servers• HTML, images, JSP, configurations
TeamSite Templating <ul style="list-style-type: none">• Content entry• XML storage• Content/presentation	TeamSite BroadVision Interface (TBI) <ul style="list-style-type: none">• Moves content to BroadVision (which moves it to Oracle)• Parses templating XML• Uses BroadVision API

Interwoven TeamSite and OpenDeploy provide the content management and deployment capabilities for the State portal. TeamSite is used by the State portal (www.ca.gov), the California Office of HIPAA Implementation, the State Bar of California, California Film Commission, First Lady of California and iBank sites.

Kana Products

Kana IQ and Response provide web self-service capabilities. Kana IQ provides guidance throughout the entire online self-service interaction. Kana Response allows one-click email escalation for self-service. In addition to the web self-service capabilities, Kana Connect provides personalized email and SMS communications for outbound communications.

The Kana products and their functions used in the State portal are:

IQ <ul style="list-style-type: none">• Customer self-service• Self-service step-by-step guidance	Response <ul style="list-style-type: none">• Self-service email escalation
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Connect <ul style="list-style-type: none">• Outbound communications• Marketing and educational campaigns• Preparation of permission-based messages• Delivery of permission-based messages	
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The only site currently using the Kana software is the current State portal (www.ca.gov). Alert Perl scripts access either web pages or Oracle tables for data to send to subscribers.

Verity

The Verity K2 toolkit was used primarily for the search component of the State portal. The toolkit requires separate SQL extraction scripts (that were custom-developed) to be written for each portal site. Approximately 300 non-portal departments' web sites were spidered and indexed through this search toolkit. The search functionality is dependent on portal customer departments' use of metadata, which is inconsistently applied and often missing. The Verity K2 software, as implemented, could not conduct full text searches for portal customers because portal content resides in the Oracle database (thus the extraction scripts to access the metadata). Non-portal site content was fully indexed, but this disparity was a primary cause of unreliable search results. As of January 2007, the State's search functionality has been moved to GSA. As far as DTS can determine, the only remaining portal customer using K2 search is the California Office of HIPAA Implementation (CalOHI). However, CalOHI expects to be using GSA sometime during 2007.

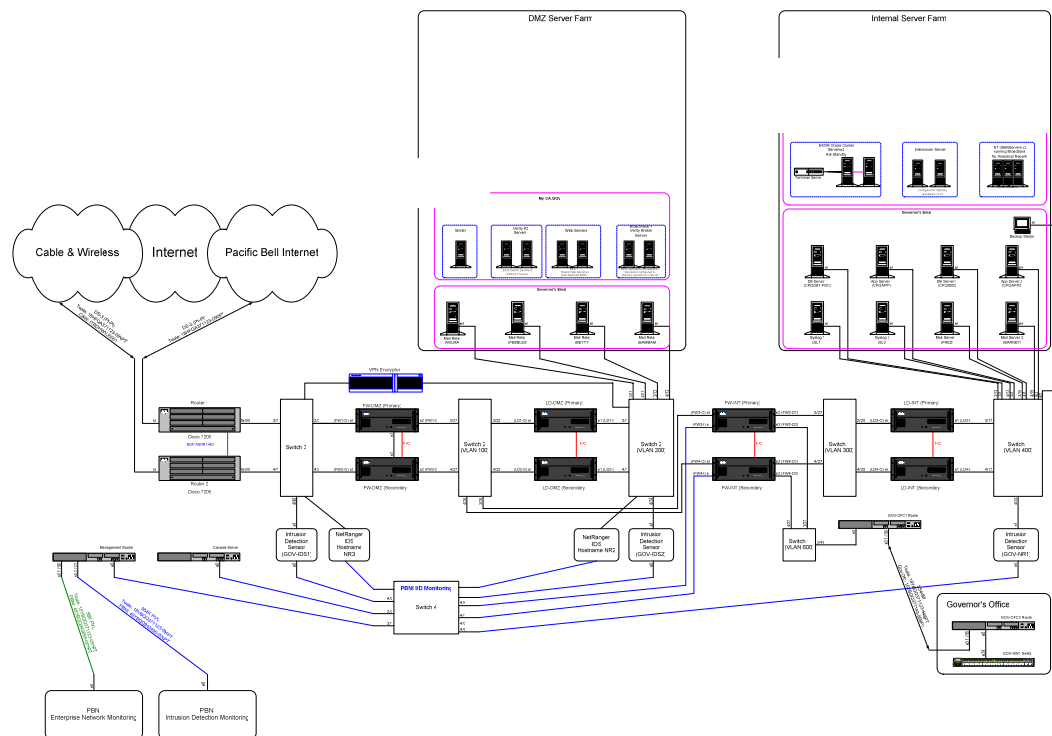
GSA

As noted above, DTS deployed GSA to provide search service for the State portal. The GSA can integrate with any web site via XHTML form or code-generated URLs. Many departments have already moved to GSA.

Hardware

The State portal hardware is located on DTS' computer floor. Network and security services are provided through DTS and content is backed up daily onto tape. Figure 3 depicts the current hardware for the State portal.

Figure 3. Portal Hardware



The DTS hosts the State portal on Sun (mostly V440s, dual processor, 4 to 8 GB) and Dell servers. The various servers are documented below:

Server	Type	OS	Dev	Production
BroadVision Application Server	Sun	Solaris 5.8	1	5
Interwoven TeamSite/OpenDeploy	Sun	Solaris 5.8	1	4
Kana Connect	Sun	Solaris 5.8	-	4
Kana IQ and Response	Dell	Windows 2000	-	9
Verity K2 Search Server	Sun	Solaris 5.8	-	4
Sun iPlanet Web Server	Sun	Solaris 5.8	1	3
Oracle DB	Sun	Solaris 5.8	1	3
Portal Service (backup, DNS, OS admin)	Sun	Solaris 5.8	-	2

Applications

In addition to the basic infrastructure, the portal provides two application type functions. The first application is a survey tool. There are approximately 50 agencies that use this easily configured survey tool to develop surveys. Once the current portal is decommissioned, this survey



tool will no longer be functional. However, this tool is an online application that agencies such as Franchise Tax Board and Department of Motor Vehicles have found very useful.

The second application is an alerts script. This script is developed in Perl and provides visitors to the State portal the ability to sign up to receive alerts when relevant content is posted. An example alert would be when the Governor makes an announcement on his web site; this tool will send an alert to those who signed up to receive an email whenever there is an announcement by the Governor. The script gets updates through web sites and the Oracle database. There are more than 100,000 subscribers to this alert tool, with around 10,000 subscribers to the most popular alerts – Lottery Daily and Traffic AM.

Web Sites

As of March 2007, the Portal currently hosts the content web sites as described below. The active sites are sites being maintained and delivered through the current State portal. The sites labeled inactive are those that have moved their active content off the State portal infrastructure, but have content on the infrastructure that is still accessible by the public.

	State of California Entity	Pages	Type	Status
1	ca.gov	200	Static	Inactive*
2	California Office of HIPAA Implementation (CalOHI)	439	Dynamic	Active
3	The State Bar of California (CalBAR)	4,900	Dynamic	Active
4	First Lady of California	20	Static	Inactive*
5	California Film Commission	90	Static	Inactive*
6	California Infrastructure Bank (iBank)	75	Static	Inactive*
7	Governor's Office Historical Archive	8,500	Static	Inactive

* These pages are inactive, but some content may still be accessible.

With the exception of CalBAR and CalOHI, whose content is completely dynamically generated, most of the other pages consist of static content and have very few dynamic components. The current web sites are built using server-side BroadVision Java Server pages (JSP) based on Java 1.3. Most content is managed and maintained through the TeamSite content management system. The Governor's Office has moved off the State portal infrastructure, but still has historical archived pages that must be maintained.

Security

Accessing the web sites on the State portal does not require special privilege unless a visitor wishes to personalize his/her homepage. For



personalizing a visitor's homepage, the visitor is required to register and provide a username and password.

There is, however, multi-tier security for access to the State portal environment (front-end web and application servers, and back-end database and content servers). For content managers, there is virtual private network access. In addition, there is a real-time intrusion detection system in place for the State portal as well as transmission control protocol port-level security.

3 Proposed Solution

3.1 General Description

To meet the high-level business objectives and resolve the current problems with the State portal, DTS proposes to enter into a partnership with a private-sector entity to refresh the State portal and assist departments in developing portal-based systems. Specifically, DTS proposes that the portal refresh and its ongoing support be provided to the State at no cost, with the private-sector partner receiving compensation through future portal application efforts with other departments. The DTS believes this strategy offers the State with an innovative solution for addressing the current issues with the State portal and providing additional options to the State for developing portal-based systems.

The DTS proposes that the scope of the procurement would include the following:

- **Design a portal platform solution**
The vendor would refresh or replace the current State portal platform, including portal and web content management capabilities.
- **Implement portal platform and redeploy existing web sites on the new platform**
The vendor would implement and configure the State portal, which includes:
 - Implement a new portal platform (e.g., software, tools, interfaces and processes).
 - Redeploy ca.gov pages to the new portal platform.
 - Redeploy content hosted on existing portal to new portal platform.
- **Provide ongoing portal platform and portal application support**
The vendor would provide ongoing support and enhancement of the portal platform as well as providing support for the existing web sites redeveloped by the vendor. The maintenance and operation of the State portal infrastructure would be divided between DTS and the vendor. The vendor's responsibilities would include:
 - Operational support of the portal platform for a period of five years, which generally consists of the portal software and middleware running on the portal servers.

- Ongoing support, maintenance and evolution of the portal platform, including planning for technical refresh and the provision of new or enhanced capabilities or services.
 - Provide knowledge transfer so that the State can assume full responsibility for the portal platform at the end of the contract term.
- **Develop and/or support future portal applications**

The vendor would provide resources and a mechanism for delivering web design and web-based application services to interested departments. These services would include:

 - New web-based application development as required by departments to be deployed on the portal.
 - Ongoing support as required by departments of applications and sites running on the portal.
- **Promote portal capabilities and selected vendor delivery services**

In partnership with DTS and the eServices Office, the vendor would promote the advantages and benefits associated with adopting the State portal for constituent communications, interaction, and transaction processing.

To acquire its private-sector partner, DTS and DGS would release a Request for Proposal and then allow interested vendors to propose solutions to that request. At the end of the procurement, the vendors would provide costs to implement the proposed solution. This concept is somewhat similar to DGS' proposed solution based IT procurements, which is focused on describing the business needs and the problems that the State is currently experiencing without necessarily describing the technology solution to those problems. This approach allows the vendor community to respond to the State with proposals that they believe will best address the State's business needs. Since the solution is unknown at the time of procurement, the costs of the proposed contract will also be unknown. For this reason, most of the remaining portions of this concept document are incomplete. The DTS proposes to submit a completed business plan once the intent to award has been issued.

To help the TSB and its Services Committee gain a better understanding of what DTS plans as a Portal eService, DTS believes conceptually that it will be able to provide two service offerings as a result of the proposed partnership—a portal service and a portal development and implementation service. These two service offerings are described in more detail on the following pages.

Portal Service

The portal service would consist of the following components:

- **Core Portal Platform Service**

This will consist of shared hardware and software. This shared architecture will be scalable and allow for a rapid expansion and changes to services. The core portal platform service will include:

- Presentation Management – This enables the creation of rich, web-user interfaces able to adapt to a number of user, system, time, or group-based needs. These capabilities provide the structure for laying out and managing portal user interface constructs and user navigation of the portal. Additionally, presentation services should provide facilities for managing group-specific interface characteristics, as well as general localization support.
- Multilingual Support – This will allow a bilingual web site. A Spanish version of the State portal will be available. The vendor will also work with agencies to make their services available in Spanish (and other languages over time.)
- Accessibility – This will ensure that the portal is compliant with the Americans with Disabilities Act (ADA). To serve those with disabilities, the State portal remains ADA compliant. In addition, the State portal will continuously improve its services through usability testing and focus groups.
- Personalization – This will provide support for individual, role-based, or group-based personalization. The portal should also support context-based personalization including: type of device used for access, time of access, and location of user during access.
- Multi-Channel/Device Support – This includes support for multiple devices (personal digital assistants, smart phones) and access channels (e.g., voice portal).
- Portal Integration – The State portal shall provide services to enable the integration of web-based applications within the portal through a variety of techniques including orchestration, the concept of portlets, inter-portlet communication and application assembly techniques.
- Portal Administration and Operations – This service will provide functions for defining and assigning areas of responsibility for security and delegated administrators.



- Security – The refreshed portal will have a strong web site security. Security includes authentication services ranging from passwords to public key infrastructure solutions.
 - Identity and Access Management – This will provide the ability to securely access applications and network files from anywhere at anytime, without having to load a log-in application on every office desktop.
- **Search Service**
Search services are provided through GSA and include, but are not limited to, indexing, taxonomy management, and search analytics.
- **Payment Engine Service**
Payment engine accepts both credit cards and electronic funds transfer payments. In addition, interfaces can be developed to link legacy systems to the electronic payment system.
- **Portal-Based Application Services**
This function will include survey tool, mapping, shopping cart, e-forms, wiki, blog, and other related type of services.
- **Web Content Management Service**
This includes the management of both structured and unstructured content delivered through the State portal, including content creation, site management, workflow, access control, and delivery.

Portal Development and Implementation Services

The portal development and implementation service would consist of the following components:

- **Web Application Development**
The vendor will be available to develop web applications based on the portal's infrastructure. Where feasible, the vendor will develop templates and component libraries to reuse application code.
- **Web Page Design**
The DTS and vendor will assist departments in the layout and design of web pages and templates to ensure consistency with the State look and feel, usability guidelines, and requirements for accessibility.
- **Web Application Integration**
The vendor will assist customers in integrating new and existing web-based applications with the portal platform and/or other web-based applications or services.



- **Migration of Web Sites/Applications to Portal Platform**
The vendor will assist departments in migrating existing web sites and web-based applications to operate on the portal platform. These migration activities may include migration to new page templates or cascading style sheets, re-writing applications (where necessary) to take advantage of portal capabilities and / or additional integration activities.
- **Web Content Management Deployment**
The vendor will assist departments in establishing and configuring the web content management service in order to enable self-publishing of web content. This may include the establishment of publishing workflows, administrative rights, base templates, and other configuration activities.
- **Web Content Management Support**
The vendor will provide departments with on-going support for the web content management service. This may include assisting with customer specific administrative activities, updating configurations, and ensuring smooth operation of the system for the department.
- **Contact Center Services**
The vendor will be available to assist with site and technical questions.
- **Marketing Services**
The DTS and the vendor will work with the department to develop a marketing plan to facilitate their constituent's use of the new online services.
- **Current Environment Assessment**
The DTS and the vendor will review the department's site for possible solutions to business problems.

3.1.1 Impact on End User

The impact on the end user will be available after the State has issued an Intent to Award.



3.1.2 Development Approach

The development approach will be available after the State has issued an Intent to Award.



4 Implementation Plan

4.1 Implementation Milestones and Timeline

The implementation milestones and timeline will be available after the State has issued an Intent to Award.



5 Financial Management Plan

5.1 Project Authority Plan

The financial information will be available after the State has issued an Intent to Award.

5.2 Budget Authority Plan

Since DTS will require that the vendor refresh the portal at no cost to the State, there will be no impact to DTS' expenditure authority. The DTS does not anticipate that budget actions will be necessary to implement the proposed service offering.

5.3 Funding Plan

At this point, information for a financial analysis is not sufficient to produce definitive rates or a rate structure. These details will be defined after the State has issued an Intent to Award. However, DTS anticipates that all the costs related to the planned portal services can be segregated into four service categories: (1) enterprise services, (2) customer application development, (3) customer application maintenance and operation, and (4) customer application hosting. Each of these categories and the potential funding method are described below.

Enterprise Services

Activities in this category are those that provide a benefit to the entire State. The majority of these costs will be the fixed cost of providing the core portal capabilities that are available to and/or benefit all customers. Activities include providing the core portal infrastructure, hosting of ca.gov, contract administration, and activities within the Office of eServices.

The existing enterprise surcharge (i.e., Portal Tax) could be maintained to fund enterprise services. Additional revenue could come from an administrative fee charged on customer utilization in the other service categories. This additional revenue could be used to offset the surcharge so that it could be reduced or eliminated as utilization of the portal increases.

Customer Application Development

Activities in this category are the one-time costs required to develop or change customer-specific applications or web presence on the new portal. Application development is a one-time expenditure that will vary widely by customer due to their specific needs. As such, the funding of this activity must be similarly flexible.

To accommodate the periodic and variable nature of these expenditures, DTS anticipates that the customer will pay the contracted vendor directly (direct payment) or, if it is determined that the expenditures should flow through DTS, DTS will bill the customers based on the actual expenditures made on their behalf plus an administrative fee (pass-through).

Customer Application Maintenance and Operation

Activities in this category are the ongoing costs of maintaining and operating the application or web presence. This would include portal application tools such as a payment service, identity management, content management, and the search service, as well as contact center and marketing services.

The mechanism for funding these costs is dependent on the distribution of application maintenance and operation responsibilities between the vendor, DTS, and the customer. Direct payment or pass-through may be used for vendor costs. Pass-through may be used for one-time or unique DTS costs, such as consulting. The DTS rates may be used for any reasonably stable, ongoing DTS expenditures made in support of this activity.

Customer Application Hosting

Activities in this category are the costs of hosting the customer application at DTS. Hosting the infrastructure for applications is a staple of DTS business. To the extent that customer infrastructure grows as a result of increased utilization of the State portal, existing DTS rates will be used as appropriate to recover the related costs. If it is determined that there are portal-specific hosting costs outside the scope of existing rates, DTS will develop new rates to address the appropriate recovery of those costs.

FUNDING STRATEGY FOR PORTAL eSERVICES INITIATIVE	
Category	Funding Approach
Enterprise Services <ul style="list-style-type: none"> Core portal infrastructure eServices Office Hosting of ca.gov Marketing Contract administration 	Potential Mechanisms <ul style="list-style-type: none"> Enterprise surcharge Administrative fee Strategy: The existing enterprise surcharge (i.e., Portal Tax) would be maintained to fund enterprise services. However, an additional revenue

	stream will be added from administrative fee charged on customer utilization in the other service categories. This additional revenue would be used to offset this surcharge so that it may be reduced or eliminated as utilization of the State portal increases.
Customer Application Development - One Time Fee <ul style="list-style-type: none"> • Current environment assessment • Application development <ul style="list-style-type: none"> – Web application development – Web page design • Integration/migration services <ul style="list-style-type: none"> – Web page integration – Web page migration – Web content management deployment • Portal-based application services 	Potential Mechanisms: <ul style="list-style-type: none"> • Direct payment • Pass-through Strategy: Application development is a one-time expenditure that will vary widely by customer due to their specific needs. As such, the funding of this activity must be similarly flexible. To accommodate the periodic and variable nature of these expenditures, DTS anticipates that the customer will pay the contracted vendor directly or, if it is determined that the expenditures should flow through DTS, DTS will bill the customers based on the actual expenditures made on their behalf.
Customer Application Maintenance and Operation (M&O) <ul style="list-style-type: none"> • Portal application tools <ul style="list-style-type: none"> – Payment service – Identity management – Content management – Search service • Application M&O • Web support • Contract center services • Marketing services 	Potential Mechanisms: <ul style="list-style-type: none"> • Direct payment • Pass-through • DTS rates Strategy: The mechanism for funding these costs is dependent on the distribution of application M&O responsibilities between the vendor, DTS, and the customer. Direct payment or pass-through may be used for vendor costs. Pass-through may be used for one-time or unique DTS costs, such as consulting. The DTS rates may be used for any reasonably stable, ongoing DTS expenditures made in support of this activity.
Customer Application Hosting <ul style="list-style-type: none"> • Server hosting • Portal-specific DTS services 	Potential Mechanisms: <ul style="list-style-type: none"> • DTS rates Strategy: Hosting the infrastructure for applications is a staple of DTS business. To the extent the



	customer infrastructure grows as a result of increased utilization of the State portal, existing DTS rates will be used as appropriate to recover the related costs. If it is determined there are portal-specific hosting costs outside the scope of existing rates, DTS will develop new rates to address the appropriate recovery of those costs.
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5.4 Performance Reporting Plan

The Performance Reporting Plan will be available after the State has issued an Intent to Award.